

Editorial

JOURNAL

BOX

"You Can't Have It Both Ways"

Most people always have their eyes open for a bargain, and we are not exceptions in our hobby. However, we should take a long-sighted view of what might at first appear to be a bargain.

The genuine model shop carries a large range of little things like wheels, body parts, lamps and spare parts. The profit in handling many of these items would be written in red ink, because of the large stocks, large display area and the time spent in selling these parts, but they are part of a complete service offered.

There is evidence that discounted major items are available from some shops who don't provide this service for obvious reasons. Sales people in these shops know nothing about our hobby. This follows the recent trend in the U.S.A; the sudden rise of the slot car has more than a little to do with this.

Don't be short-sighted. Deal only with the shop that gives you complete service. You certainly can't have it both ways for long, so just picture the state of the hobby without readily available bits and pieces and the advice that goes with them, and think twice about where you make all of your purchases.



Cover Photo by courtesy New South Wales Government Railways.

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# Australian Model Railway Association

Statement of Receipts and Expenditure for year ending May 31, 1966

## RECEIPTS

Bank balance 31-5-65	\$293.34	
Petty Cash on Hand 31-5-65	78.00	371.34
New Subscriptions		257.15
Renewals		760.15
Donations		223.31
Sale of Badges		11.00
Sale of Journals		0.90
Insurance Commission		3.87
Advertising		308.00
Bank Interest		5.24
Typewriter Hire		16.50
Duplicating		3.66
Return of Cheque Book		1.20

**\$1,962.32**

## EXPENDITURE

"Journal" and "Buyers' Guide"	\$1,373.26
Stationery	116.70
Postage	175.20
Purchase of Badges	25.35
Duty Stamps	7.00
Addressograph Plates	10.68
Insurance	4.86
Bank Charge	0.17

**\$1,713.22**

Bank Balance 31-5-66	210.19
Petty Cash on Hand 31-5-66	30.00

**\$1,962.32**

## A.M.R.A. ADVISORY PANEL

The present members of the advisory panel are listed below. Members wishing advice from the panel should address their queries to the Federal Secretary, and include a stamped addressed envelope for reply.

**Automatic Signalling:** Allan Dowel.

**Base Board Construction:** T. R. Little.

**Bridges:** Arthur Robinson.

**Electrical:** Norm Robinson, T. R. Little, Gary Bettison (A.C. and stud contact), John Dennis, Allan Dowel, Warwick Mathieson, Cec Wall.

**European Prototype:** Gary Bettison (especially Deutsche Bundesbahn).

**Kit Powering:** T. R. Little, Warwick Mathieson.

**Layout Design:** Norm Robinson, T. R. Little, David Joyce, M. R. Baker.

**Lineside Structures:** T. R. Little, David Joyce.

**Loco Building:** Norm Robinson, John McDicken (conversions).

**Relays:** Norm Robinson, Brian Rowling, Cec Wall, Allan Dowel.

**Rolling Stock Construction:** Kel Mulhall, Warwick Mathieson, Cedric Rolfe.

**Scenery:** John Yourn, Warwick Mathieson, M. R. Baker.

**Signals:** T. R. Little, John Dennis, Warwick Mathieson.

**Timetable Working:** Paul Rogers, Allan Dowel.

**Track and Points:** Tim Dunlop, Norm Robinson, T. R. Little.

**N.S.W.G.R. Prototype:** John Clifton, Pat Burke (rolling stock), John McDicken, Paul Rogers.

**U.K. Prototype:** David Joyce.

**V.R. Prototype:** Norm Robinson, John Dennis.

**N.Z.R. Prototype:** Len King.

**Q.G.R. Prototype:** Arthur Robinson.



## WANTED TO SELL —

WANTED TO SELL: Romford "O" Gauge motor, unused, \$5.50 or near offer.

J. Bucknall, Loch, Victoria.

## "GREEN OVER RED"

The Australian transport magazine with a difference.

For details and specimen copy, send stamped, addressed envelope to —

Box 145 P.O. Box Hill, Victoria.



# ELECTRICCLINIC

## No. 2 — THE DIODE

The modern silicon diode, which has just about ousted the older copper oxide and selenium rectifiers, is of great value to the railway modeller. Its main advantages over the latter are:-

- (a) Lower internal resistance, which in practice means less heat developed and so smaller size, and
- (b) Higher "PIV" (peak inverse voltage) — only one element is required for model railway applications as against three copper oxide elements for 12 volts.

Every modeller should familiarise himself with its applications, as a complete understanding will permit very interesting and economic use.

Typical diodes suitable for our hobby come in 1, and 18 amp. sizes. Don't worry about PIV — this is always much higher than our requirements. 75v. is a typical figure. There is so little difference in the price of the various sizes that where space is no problem, use of

the 18 amp. size is recommended. Typical prices would be about 60 cents for the 1 amp. size (AD 100) and 85 cents for the 18 amp. size (IN 3491). The larger one is mass-produced for use in motor car alternators, hence the low relative price.

**HEAT SINKS:** Don't let this term scare you. The silicon diode is sensitive to excessive heat. This in turn means that if you must solder the pigtail terminal wires, the iron should be very hot, applied and removed quickly, and a pair of pliers should be clamped on to the wire between the soldering point and the body of the diode. If in doubt about soldering, use screw terminals.

The larger type is a little easier to use in this regard, as it has to be pressed into the heat sink — a piece of sheet copper, aluminium or brass. The connection to the heat sink can thus be made prior to pressing the diode into the heat sink. What heat is developed by current passing through the diode is dispersed by the heat sink. At low currents used in mo-

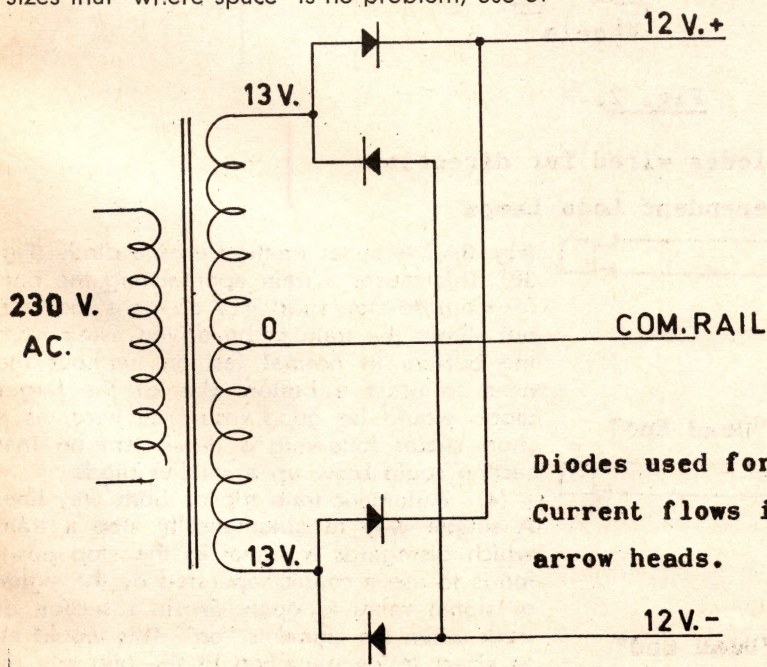


FIG.1

Diodes used for rectification of A.C.  
Current flows in the direction of  
arrow heads.



del railways, the 18 amp. size can be used without a heat sink, up to 3.5 amps.

### SOME APPLICATIONS:

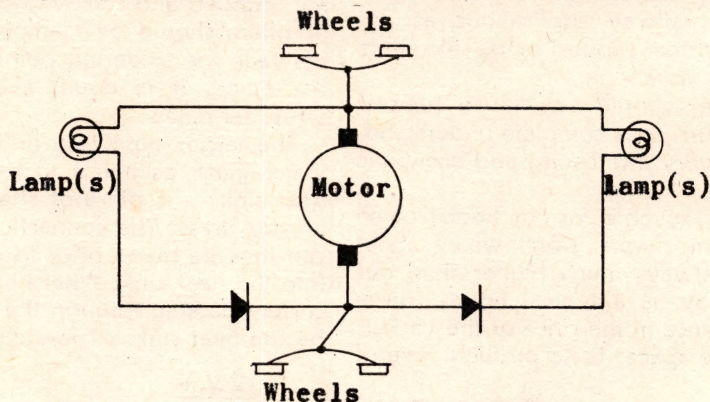
(1) Rectification of A.C. for power supply (Fig. 1). This shows how a transformer with a 13-0-13 volt secondary winding and four 18 amp. diodes can supply the total full wave fraction currents for the largest layout. Alternatively, two secondary windings each of 13 volts, or windings of two separate transformers could be used in the same arrangement.

The current available would depend on the transformer capacity. 3 amp. windings provide sufficient capacity for a layout with about

ten H.O. trains running simultaneously, assuming that no more than six would be running in one direction at one time.

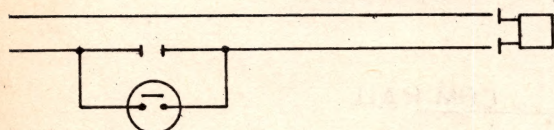
(2) Locomotive lights with direction dependence. Here the 1 amp. size would be used. One diode is wired in series with the lamp (lamps) at one end, and another, wired in reverse fashion for the lamp (lamps) on the other end. Trial and error will determine the direction of the diodes. (Refer to Fig. 2).

(3) Dead-end sidings. Many an accident can be avoided if a suitable length of the extreme end of siding track can be deadened electrically. An earlier arrangement uses a press button to re-liven this section of track.



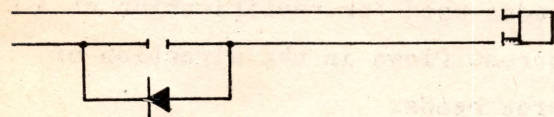
**Fig. 2.**

**Diodes wired for direction  
dependent Loco Lamps**



**Fig. 3a**

**Button controlled "Dead End"**



**Fig. 3b**

**Diode controlled "Dead End"**

(Fig. 3A). A better method uses a diode (Fig. 3B). This causes a train approaching the buffer stop to stop short if a driver is too fast, but allows the train to be driven away from the buffers in normal fashion, without the need to press a button. Use of the larger diode would be good insurance here, as a short circuit following a derailment on that section could blow up a smaller diode.

(4) Automatic train trip on both way line. A simple way to automatically stop a train which disregards a signal in the stop position is to use a contact operated by the signal or signal relay to open circuit a section of track when the signal is "on". This would also affect trains travelling in the opposite di-



rection. A diode wired across the contact allows a train running in the opposite direction to pass regardless of the signal position. (See Fig. 4).

Again it would be wise to use one of the 18 amp. diodes.

(5) Two trams or railcars with individual control on one track. The ingenious circuit in Figure 5 allows two trams (non-insulated wheels and overhead) or two railcars (two rail diesel) or four trams (with overhead and two rail wheels) to be individually controlled on the same track. It should not be used generally for loaded trains, as the system is little better than pulse power, with consequent overheating of the motors a possibility.

The cars operate on alternate half cycle pulses from the A.C. supply. The diodes direct the appropriate pulses to the right motors. The condensers tend to flatten out the pulses slightly. They should be at least 500 M.F. at 16 volts. One or two of these will fit in an average HO tram or railcar.

If two-rail with overhead can be used, four cars can operate. In this case, two more controllers and diodes are wired between the transformer and the other rail, and the trams are wired to the wheels running on that rail.

(6) Track detection circuit for two-rail. A diode is used to separate track circuit currents from traction circuits in Figure 6. This shows the basic principles of a "track occu-

pancy" detection circuit. As it is shown, it is suitable for travel in one direction only. If the traction current is reversed, then the detection circuit must also be reversed. If two-way travel is required, reversal can be arranged by relays.

Note that the detection voltage is higher than the traction voltage. This serves three purposes —

- (a) Stops the traction current from flowing back through the relays;
- (b) Acts as a "hot spot" circuit to break

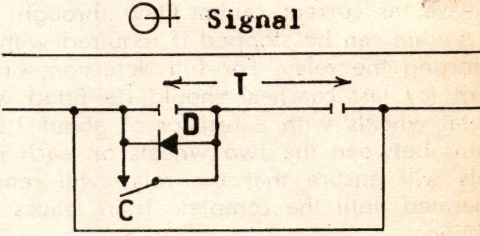


Fig. 4.

**Trip section of track (T) controlled by signal or relay contact diode (D) allows travel from right to left regardless of contact (C).**

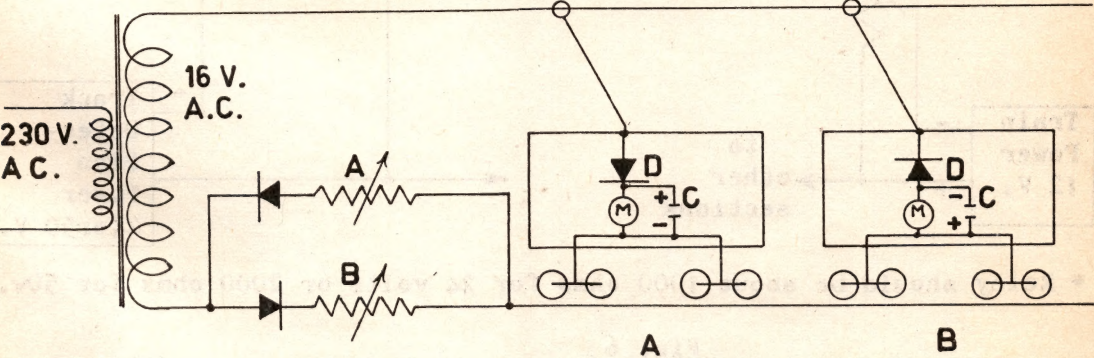


FIG. 5

**Two Trams on One Track with Individual Control**  
**Tram A Responds Only to Controller A.**  
" B " " " " B.



through dirty spots on the track and wheels;

- (c) Ensures reliable relay operation without increasing the current to a point where detection currents will affect train motors.

Referring to Figure 6, as a train enters this track section from the left, Relay R will operate as track detection power flows through the motor. This is not enough to affect the motor (from .012 to .025 amps., depending on the train speed).

As the train leaves the section, relay R will release, as current cannot flow through D.

A train can be stopped if required without affecting the relay. For full detection, brake vans (or last coaches) should be fitted with metal wheels with a resistor of about 1,000 ohms between the two wheels on each rail. This will ensure that the relay will remain operated until the complete train leaves the section.

Contacts of R can operate signals, diagram lamps, train trips (see para. 4 above), etc.

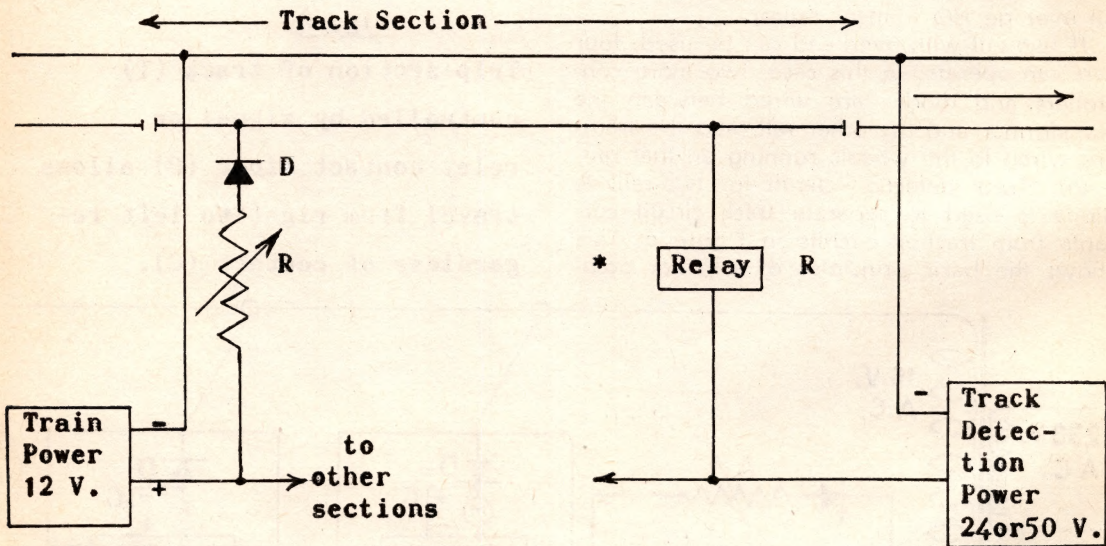
#### FOOTNOTE

Over the last year or so, I have been embarrassed several times because I have found the prices to be dearer than that quoted in Journal and Buyers Guide. This has also required more correspondence with members who have asked me to purchase diodes for them.

The original diodes advertised in the July, 1965 Buyers Guide for 6/9 and 10/8 respectively, have crept up to 92 cents and \$1.30.

I now have a new source from which I can buy the ADIO O (1 amp.) for 60 cents and the IN3491 (18 amps.) for 85 cents, should members be unable to obtain these. Please include postage of 4 cents for 4 ounces, plus 5 cents if you wish the package to go by certified mail.

EDITOR.



\* Relay should be about 1000 ohms for 24 volts or 2000 ohms for 50v.

Fig. 6

Basic track detection circuit.

Diode D stops detection current from flowing via train power pack, through resistance controller R.





# THE POP VALVE! FOR

## READER'S LETTERS

### TO THE EDITOR, AMRA

Dear Sir,

Re Mr. Parker's letter to Pop Valve of Journal No. 65. It is my consideration that Mr. Parker has presented us with a very inconsiderate opinion of the general conduct of NSW Branch meetings.

His treatment of this matter concerning children is, in my mind, a direct insult to the organisers of the meetings and also to the many young people who do take a sensible interest in this exacting hobby.

When read, Mr. Parker's letter appears to draw the line of qualification for the title "child" at any person less than 17 years of age. This makes me extremely angry since Mr. Parker has obviously overlooked the number of people around, say, 14 or 15 who take a sincere interest in this hobby, and I don't think that Mr. Parker has attended sufficient meetings to make a firm statement.

Mr. Parker's claim that the meetings he has attended have been spoiled by the **presence** of numerous children only proves that he has an acid dislike for small children which must surely not to be taken as relevant to the meetings.

His suggestion of junior activities, apart from the adult activities, is entirely impractical since there are not enough junior members to warrant the holding of meetings, and I'm sure we would only lose the junior members, which would make the Association very **unpopular** with a majority of parents. The idea that fathers can arrange these meetings is impossible, since most of the junior members around 14 and 15 are only interested themselves and do not have their parents' support.

Mr. Parker's talking about "hordes of children" aged around "11 and 12" is most unjust since I can safely say there are no more than ten present at any meeting and **all** of them have parental supervision.

I'm sure model railroading has now reached a stage where a "foolish, childish" attitude no longer exists. Most adults realise the usefulness of such a hobby for both themselves and their children.

This "foolish, childish" stigma is confined only to the younger generation of mainly "slot car" addicts who aren't interested and don't come along anyhow. Let's face it: these lines of "hobby for man and boy" and so forth, are the only ways in which large proprietary firms can appeal to the average family's pocket at Christmas and birthdays, and I can't see anything wrong with them. The "hobby for creative men" title is worthy also, but most of the people in this class would be strictly enthusiasts with the necessary large pocket; for our hobby is an expensive one.

The supposedly mistaken practice of allowing children to operate controls at exhibitions is utter garbage, since the children are always under strict supervision; and I have yet to see the bad effects on both audience and operators, of a boy of 12 years driving a train. (It is interesting to note that at the 1966 Exhibition at the Town Hall, only two children came into this category).

I think that most people realise the truth of the idea of "mature skill and judgment", and when they see one 12-year-old operating a lay-out it must only give them a greater and broader interest in the hobby. I'm sure the public realises that when a 12-year-old is allowed to drive a model train it does **not** automatically follow that the adult members are all insane!! Even then there are far more young boys around 14-15-16 who have brains, than Mr. Parker seems to think.

Mr. Parker's concern about his models being handled being handled by "some clumsy brat" is very insulting to the parents of the half-dozen young blokes at 12 years who have the interest to come along to the meetings,



and also to the other young people less than 17, including myself. His claim of having to compete for layout space is an insult to the persons who organise the running of both meetings and layouts.

Finally, I would like to say that if this is the attitude, towards junior members, which will be taken in the near future, I will be pleased to withdraw my membership immediately, and I am disgusted that there is such a person among us who thinks that way about our young members, who are very interested in the hobby.

Yours,  
WARREN WARD, age 16;  
N.S.W. Branch junior  
member.

### TO THE EDITOR

Dear Sir,

At the risk of incurring the wrath of member Jack Parker, I intend entering into battle with him over his rather startling remarks about junior members. His letter shows a lack of tolerance and good humor, and, to be quite frank, it shows signs of childish petulance. Mr. Parker has presented his arguments against junior members, but there are two sides to every argument.

Re the phrases "Hobby for Man and Boy", etc. If Mr. Parker needs the re-assurance of oft-repeated slogans ("The Hobby for Creative Men") to bolster his ego, then perhaps he would be more interested in other hobbies that can supply self-congratulatory slogans by the cart-load (e.g. political demonstrations).

The image presented by a hobby is not the content of its slogans; it is the attitude of the hobbyist and what he does. Only morons are conditioned by slogans (vide Das Kapital: Marx).

I suppose we would all like to see adults operating scale layouts at exhibitions but, because of such petty restrictions as belligerent bosses, dislike of the dole, a family to support, etc., one or both of these desirables are sometimes unobtainable. You cannot close an exhibition between 8.15 a.m. and 5.30 p.m. so you accept the offers of help made by junior members, and very gratefully, too.

Then of course we have those inquisitive fingers. Naturally, none of them belong to adults — or do they? Just who is trying to

kid whom? The only way to keep paws belonging to **any** member "off the merchandise" is to have a firm chairman who enforces the Golden Rule of clubs anywhere — **Do not touch without the owner's express permission.**

Yours sincerely,  
LAURIE BURROWS,



### MELBOURNE MODEL RAILWAY SOCIETY

Since our last report, which I realise now was over 12 months ago, we have achieved an amazing amount of work. I won't detail this, as it is the subject of a series in Journal by the Editor, who is one of our members.

Of the four scale miles of main line and five stations planned, about 90% of the main line is completed, and two of the stations were opened for business with a great ribbon-cutting ceremony on November 11. By business, we mean timetable running sessions.

As we have our own club room with seven days a week access, members are now being canvassed to see which nights they want for running and which for work nights. It looks like Monday, Wednesday, alternate Fridays and Saturday afternoons for running and Thursdays and alternate Fridays for work sessions.

Our two fully operational stations, Beach River and Creswick, have 100% remote control points from lever frames, and sufficient signalling for safe working. Scenery and most structures are completed. The elaborate 5' x 1' signal box panels are complete, enabling block switching to four controllers; telegraph signalling, etc.

A third station is almost completed, and we are about to introduce the C.C.T. (colour coded track) method of freight control. In the meantime, we are using two temporary rail motors stopping places as terminals, which allows four-station point to point operation.

As it looks, as if we will be operating on several nights of the week, a few memberships are still open. Inquiries should be made to Ken Elder, 3 Balmoral Avenue, Pascoe Vale, or at the club rooms, 580 Lonsdale Street, Melbourne, on Friday night.



# A Rail Car For Your Layout

by Rex Little

This "little" article details how I converted two Airfix Railbus kits to a facsimile of a V.R. Walker 280 h.p. Rail Car.

## MATERIALS REQUIRED

- 2 Airfix Railbus kits
- A quantity of Styrene or similar sheet
- 1 Motor bogie — 12'6" wheelbase (I used a Romford bogie)
- 2 4-wheel bogies — 9' wheelbase (I used the ones from an old Tri-ang T.C. coach)

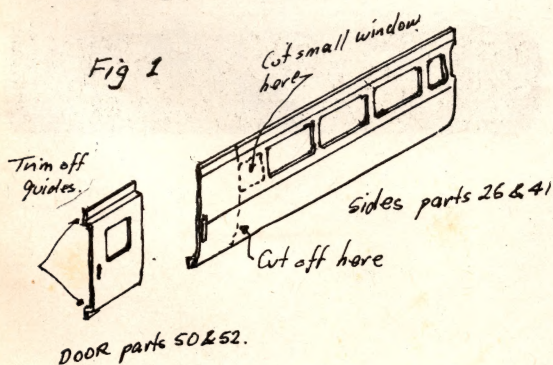
Polystyrene Cement

Plastibond or similar filler

## MODIFYING THE AIRFIX KITS

Firstly, put away all parts relating to the chassis and under-floor of the kit. Locate one body end (part 43) and remove the headlights with a knife and file smooth. Similarly, locate the roof (part 53) and remove the destination boards. File one end square and reshape the roof at the same time. Remove the projecting locating strip from the underneath side at this end.

Locate the two longer body sides, (parts 26 and 41) and, using the shorter sides as templates, mark out a further small window at one end. Cut out the windows using a drill and a fine saw and check that the windows (30 and 40) will fit. Carefully cut off the surplus with the fine saw along the edge of the window. This will later be glued to the other end. Locate the doors (parts 50 and 52) and trim off the guides (see Fig. 1).



Assemble the sides as shown in Fig. 2, windows 30 and 40 being fitted in the new holes, and a piece of white styrene or celluloid being glued in place for the toilet windows. When the sides are dry, use them as templates to cut new locating slots in the floor, then glue the body end, and modified sides, in place. For the other body end, I cut the ends from an old Tri-ang T.C. coach, shaped them to fit and glued in place. This also provided the corridor connection. Check that the roof fits, but do not glue in place as further interior detail may be added.

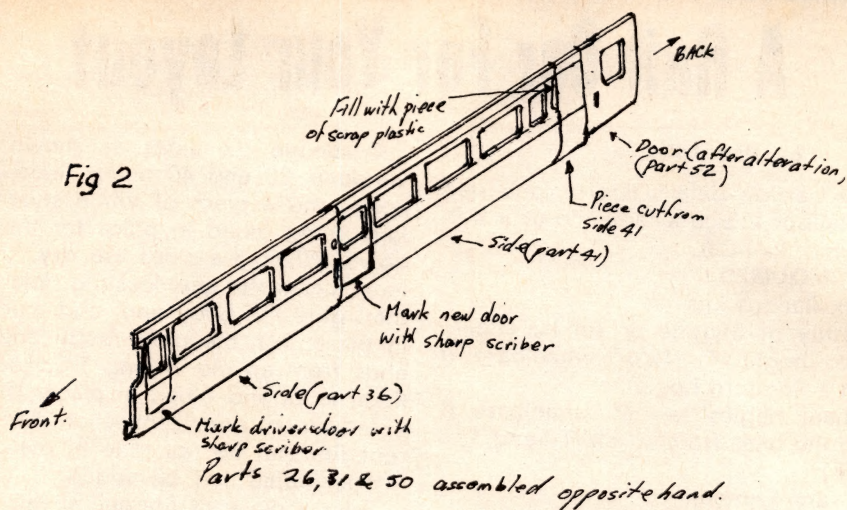
Take a piece of Styrene sheet, 2" long by  $\frac{5}{8}$ " wide, and glue to the front of the body with approximately  $\frac{3}{8}$ " projecting under the floor. Then take two strips of Styrene sheet, 6" long by  $\frac{1}{2}$ " wide, and glue them along the sides with  $\frac{1}{4}$ " projecting below the floor. I found it is better to put this skirt on in three pieces as a better contour results. When dry, feather the top edge to the body with a rough file and smooth out the contour by filling with Plastibond. This can be filed and sanded smooth ready for painting.

At this stage, mark out the doors with a sharp scribe. Cut out the partitions from Styrene sheet ready for fitting. Before fitting the driver's cab partitions, glue in a piece of  $\frac{1}{8}$ " lead on the floor of the front compartment: this will aid smoother running.

About 14" from the front of the body, drill the bogie pivot hole centrally through the moulded rib on the under-floor. I found that the Tri-ang bogie was a little too wide to pivot enough to allow the car to run on 18" radius curves. Consequently the bogie was modified as follows —

First drill through the bogie sides into the two wide stretchers with a No. 55 drill, about  $\frac{3}{8}$ " long. Carefully drill into the narrow stretcher with a No. 60 drill, again about  $\frac{3}{8}$ " deep. With a Junior Hacksaw, carefully cut the bogie sides from the stretchers and tap the holes in the stretchers 10BA and 12BA respectively. Open out the holes in the bogie side frames to 10 and 12BA clearance. Re-assemble with 10 and 12BA countersunk head screws.





At this stage, I fitted Jackson 12mm. dia. spoked wheels. A little filing of the bogie is necessary to allow the wheels to fit nicely. The ends of the axles had already been pointed in a hand drill. Four Peco bearings were then slipped through the axle boxes and pushed in to be a firm fit on the axles.

These were then held in place with a little Araldite in each box; here Plastibond could have been used with equally effective results. The central pivot hole was filled with Plastibond and, when dry, drilled and tapped to take a 6BA pivot screw. Fit the bogie to the hole already drilled in the floor.

Drill and tap a piece of scrap polystyrene  $\frac{1}{8}$ "; I used a piece of the sprue from the kit about  $\frac{1}{4}$ " long. Glue this piece to the underside of the roof about  $2\frac{1}{2}$ " from the front. Drill a  $\frac{1}{8}$ " hole in the floor to allow the roof to be assembled to the body with a  $\frac{1}{8}$ " screw. Also drill a pivot hole  $\frac{1}{8}$ " from the rear of the body. Set the body with the floor level on a piece of rail and mark out the skirt as shown on the plans (Fig. 3).

### THE MOTOR BOGIE

The Romford bogie is too long to have the motor unit scale length. However, the only modification I made was to fix an L-shaped piece of aluminium at each end to pivot the cars. The body was made from .020" Styrene sheet, the windows being cut out and backed with clear celluloid; the doors and louvers were scribed on the sheet prior to painting.

Suitable holes were drilled in the roof for a 6BA fixing screw.

### FINISHING TOUCHES

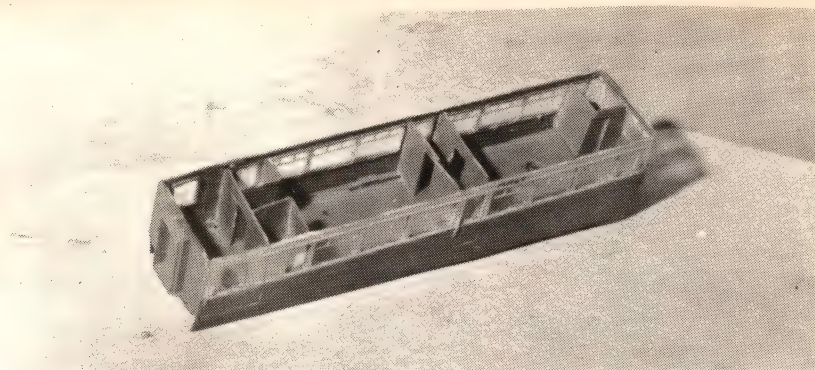
As I could not find a suitable dummy coupler in my box of bits, I used two of the Airfix bumpers (parts 62 and 63) which come with the kit. These were cut off and glued in place at floor height in the centre of each car. The air horns were fashioned from a couple of  $\frac{3}{4}$ " x 18 panel pins and a 12 volt "grain-o-wheat" bulb was fitted for a headlight.

Sentinel coach ventilators were fitted to the engine compartment and over each toilet.

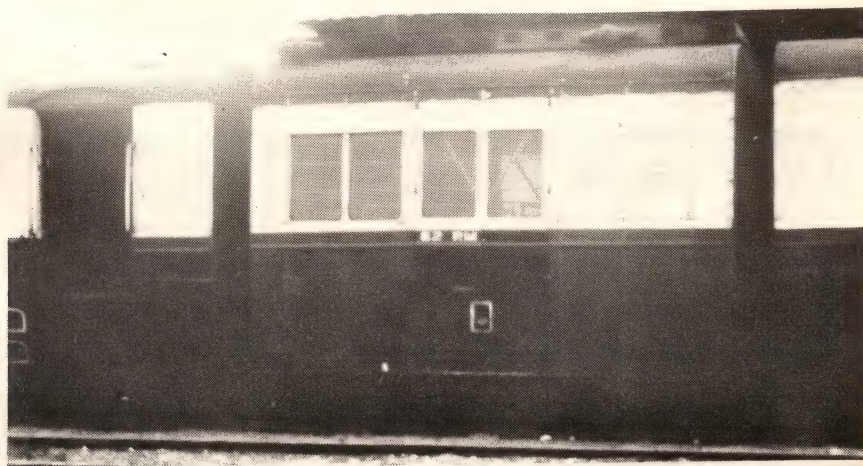
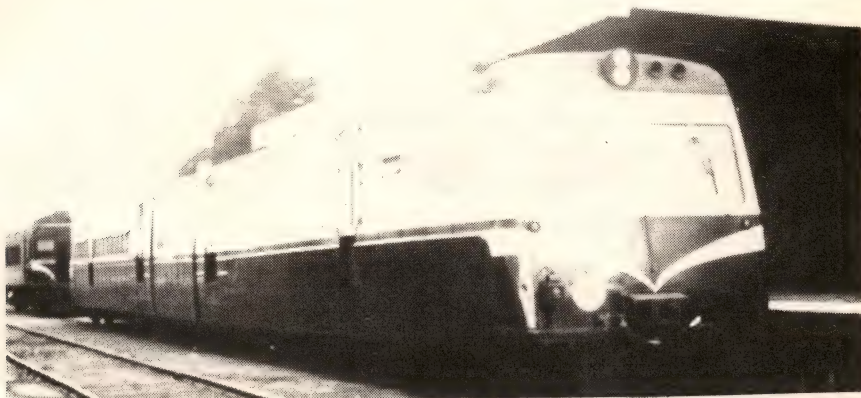
Finally, the unit was painted in V.R. blue and gold and the Airfix transfers applied to the ends of each car.



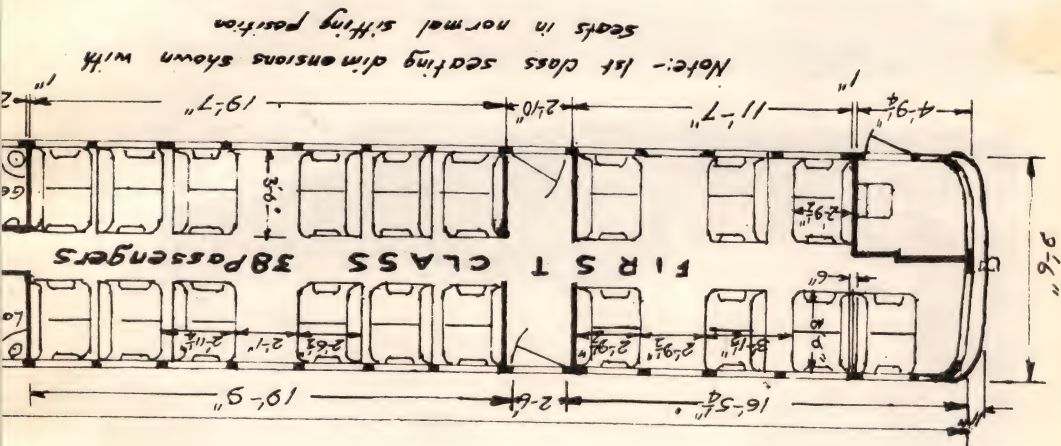
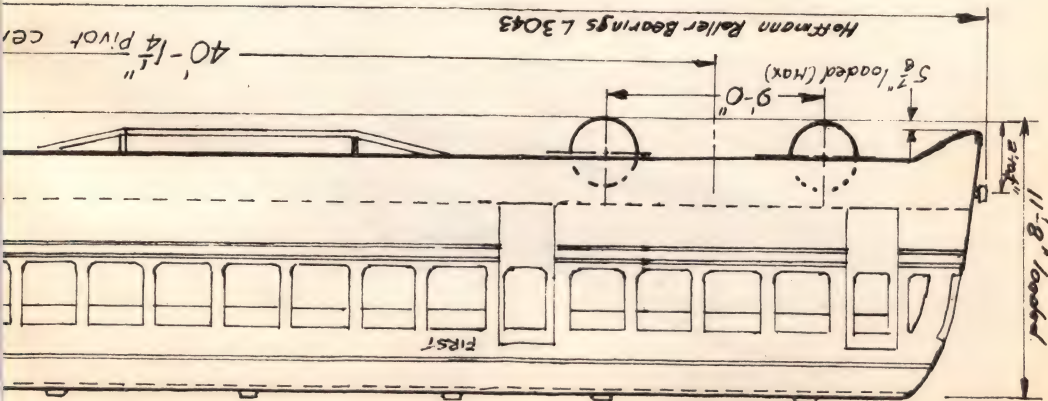




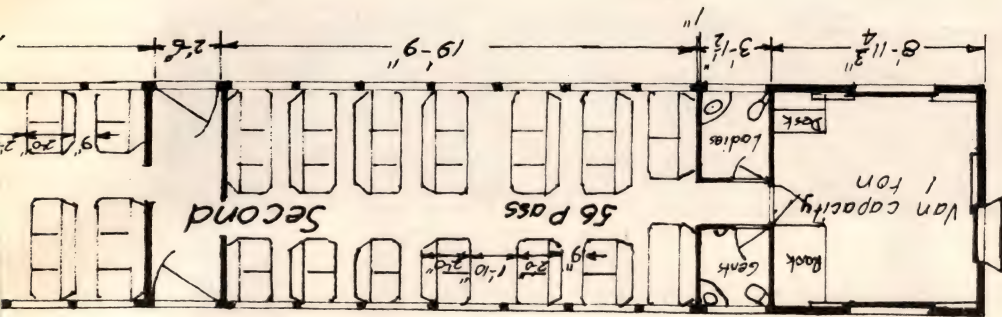
Top view showing (i) compartments (ii) coach end from old Tri-ang T.C. coach.



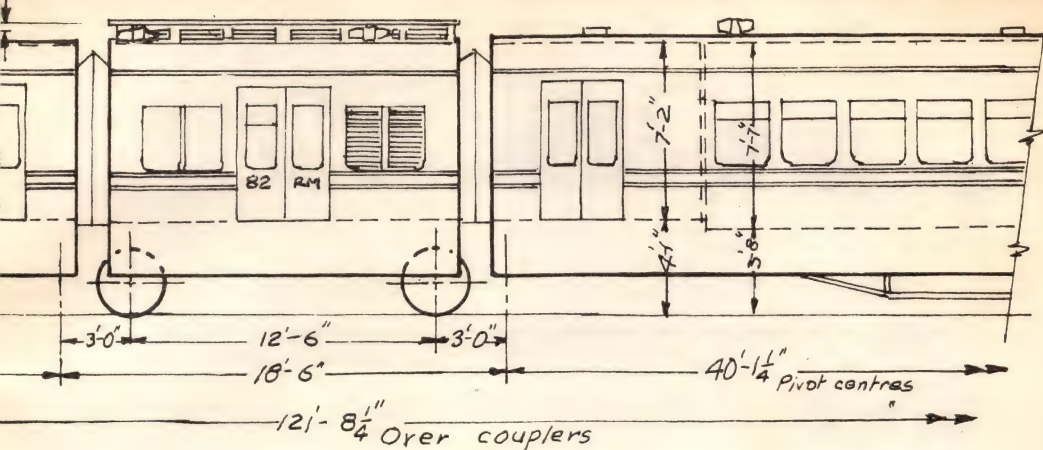




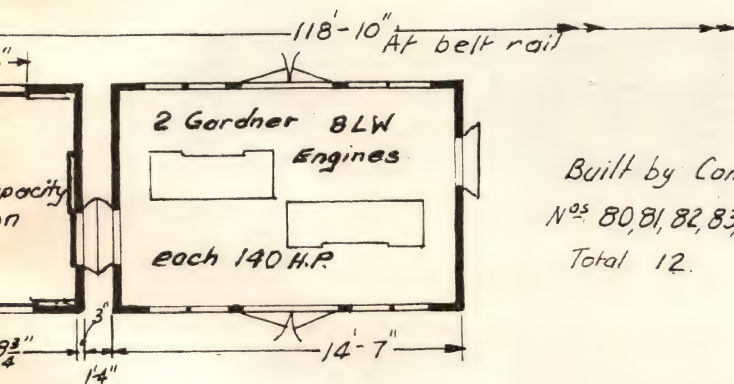
Note:- 1st class seating dimensions shown with seats in normal sitting position







38 First  
56 Second  
Total 94 Passengers



Built by Contractor 1949-50  
Nos. 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91.  
Total 12.

Gen. Arrang't	Dwg N° K.164	Wheel dia	3'-0"
Bogie	" "	Water Capacity	2 tanks of 80 Gall.
Tare	46-10-0-0	Fuel Capacity	2 tanks of 50 Gall.
Brake Cylinder	6" Dia	Floor Area (intl).	457 sq ft per Comp't.
Brake % Air	55.9	Lighting	Fluorescent.
Brake % Hand	18.4	Total Weight loaded	54-10-0-0

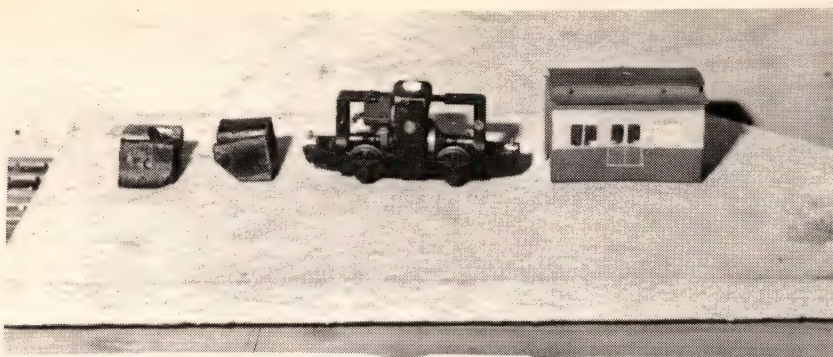
V.R. CAR CLASS RM

WALKER

280 H.P. TYPE

FIG. 3





Motor unit showing (i) extensions for the carriages (ii) lead weights for traction (iii) body.



The completed model.





# Branch Notes

Reports of clubs and A.M.R.A. branches will be published in this column provided that they are received by the Editor by the 10th of the month preceding the issue months.

Reports should be typed (double spaced) if possible, or sent in earlier to permit typing time.

## VICTORIAN BRANCH

As readers of these notes will have gathered, the Victorian Branch has been very active of late. We are getting something to show for those ever-recurring Layout Construction Nights — such is the enthusiasm that some members work on the layout every Tuesday night. Want to come? Ring Rex Little at 878 7670.

"Wot abaht North Port Station?" croaks a belligerent voice. "Wot gives, eh?" The only answer to this one is "Wait and see". The wheels of Government departments turn very very slowly . . . we HOPE to move in to North Port in Jan-Feb 1967.

At the December meeting a motion was passed that will mean an end to formality at most Victorian Branch meetings. In future, minute-taking will be confined to the quarterly business meetings and the AGM. At ordinary meetings members and visitors will sign at the door while the treasurer will shake members to see if they go "clink". (They won't for long).

After this "formality", it's on with the show.

If you want to have an item put on the agenda of a business meeting, it must be in the hands of the secretary, in writing, by the first day of the month of the business meeting. No write, no go.

Other snippets from the December meeting — the chairman asked for models for display, and half an hour later was foolish enough to ask "Any more?". There were.

Two new sub-branches are being formed; Oakleigh — contact Wayne Mills 56 2621 or Trevor Thomas 544 3559, and South-Eastern (Mt. Waverley-Toorak) — contact Laurie Burrows 27 4852.

Mrs. Baker and Mrs. Treseder prepared a truly magnificent repast, for which they were

thanked by George Holden on behalf of those present.

That "aggie pipe" was there again and netted about \$7 for the layout fund.

Reps of the Australian Mixed Retail Association were spotted hawking their wares. Cries of "Spagetti-O's, mushrooms, tomato soup in big and small cans . . .", "Traction Publications, buy a complete set while they last . . . bolster wagons, bogie flats, etc . . ." "Scraaap plaaastic only 20 cents each

Another year at this rate and they'll be flogging junk jewellery and gents' "what-have-you's" and there were the 35 happy and bloated bods who went home saying that it was the best meeting in ages.

**Notice:** The Annual General Meeting of the Victorian Branch will be held on Thursday, March 9, 1967. Nomination forms for the election of office bearers are now available from the secretary.

Secretary is Laurie Burrows, 11 Norman Court, Mount Waverley, Vic., phone 27 4852 (evenings).

SEE YOU AT "THE OLD VIC".

## N.S.W. BRANCH

If this report gets into print in Jan-Feb issue of Journal it will be more by the good graces of the Editor than those of the N.S.W. reporter.

Facts are, things have been very quiet in N.S.W., although we are pleased to report that the N.S.W.G.R. have advised that they hope to call tenders shortly for the use of the Dulwich Hill land which we have our eye on. Maybe we will have some better news in 1967.

October meeting was an auction and the usual horse trading took place. Yours truly acted as chief whip and "buyer-goader" very ably supported by Gus Durham who did a mighty job pencilling, catching the odd bid and identifying the bidder. Gus never misses a price or a name and the end of the day saw a commission to AMRA funds of \$8 odd.

January and February meetings have not been finalised yet so members will be advised by "presidential letter".

Best wishes to all for 1967. Rup Ackland.



# Camden-Campbelltown Line

**Broughton Boydell**

Before the Camden-Campbelltown line was closed, I promised to write an article on it, but never did get around to it. The Editor has asked for articles, so here goes.

I travelled over this line daily to school for some years, so it holds a particular interest for me.

Camden, situated 38 miles south of Sydney on the Nepean River, was one of the earliest towns in New South Wales and naturally pressed for a railway from the beginning of railways in that State. The district was populated generally by free settlers, mainly retired army men who were given land grants.

To the north, the Richmond and Windsor districts also on the same river as Camden (but under another name) were populated generally by freed convicts or "ticket of leave" men.

It was Richmond and Windsor who got the railway first, probably because the terrain was more suitable and holdings smaller, with a greater population. There was also the need to move the farm produce to market.

In September, 1879, an Act was passed by the New South Wales Parliament allowing the construction of tramway feeder services to railway stations, provided they did not exceed

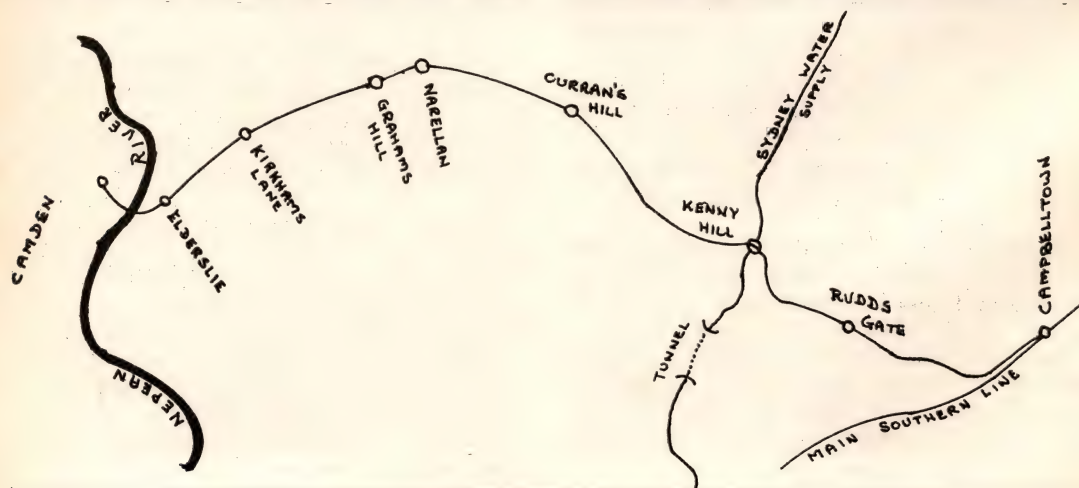
20 miles in length.

Camden did not lose any time pressing its claim and tenders were called in 1880 for the construction of a line to tramway standards for a length of seven miles thirteen chains. The accepted tender price was £13,462. The line was to be laid with 48lb rail and was to conform to tramway standards which allowed a maximum 1 in 20 grade in the down direction and 1 in 19 grade in the up direction, but to railway clearances.

The line as originally laid left the main southern line about 30 chains south of Campbelltown, which is approximately the point where the main southern line and Camden line later converged to run, alongside each other. At the time of duplication of the southern line, the Camden tramway was extended to run alongside the up southern line into Campbelltown.

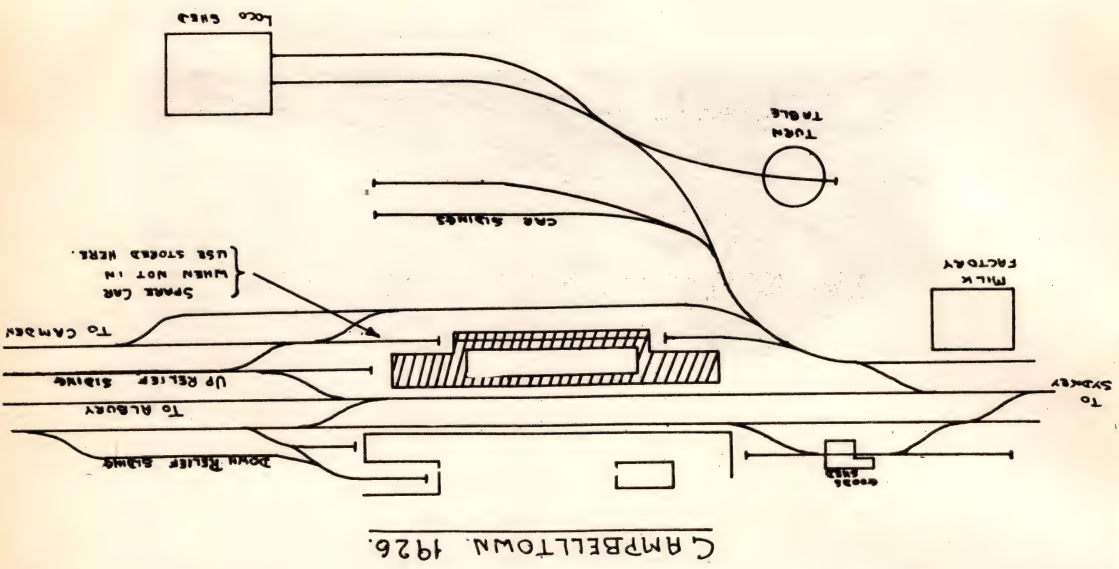
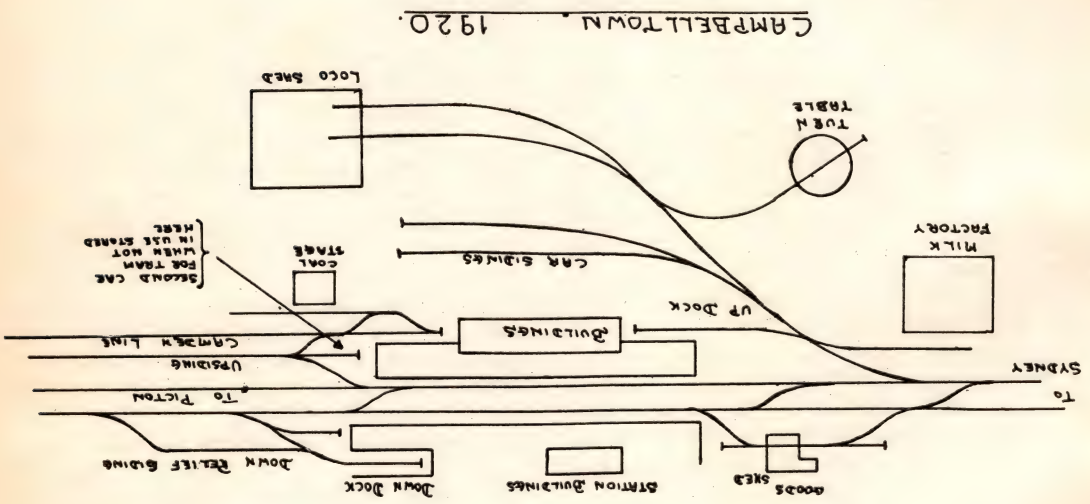
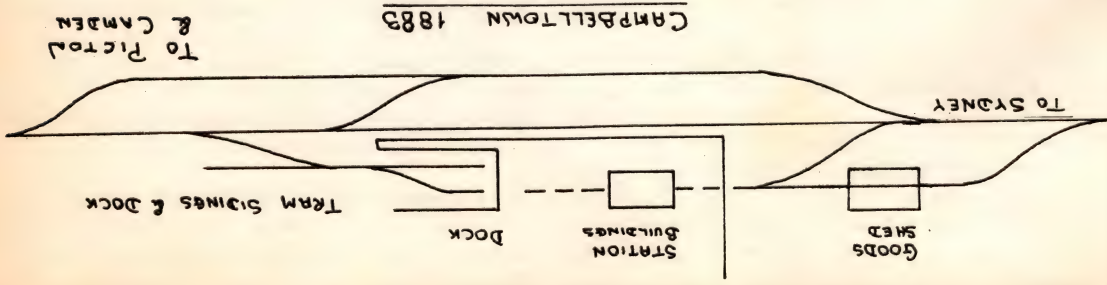
When this extension was put in, it gave a five chain curve where it joined the original line, and this sharp curve always restricted the speed at which "Kidd's Hill" could be tackled. It was also the reason for excluding all bogie goods wagons from this line because of the fear of buffer locking.

Immediately after leaving the main line, it crossed Bow Bow Creek and then climbed the



CAMDEN BRANCH LINE.







1 in 20 to the top of Kidd's Hill in its own fenced right-of-way which it then left to run alongside the road for the next mile to Rudd's Gate.

There was a short down-grade at the top of Kidd's Hill, followed by a climb of 1 in 33, then 1 in 23 to Rudd's Gate, which was only a very small unattended platform built of sleepers, on a small level stretch of line. In the mid-1930s when a Franciscan monastery was established here, Rudd's Gate was renamed Maryfields and equipped with a new extended platform.

Originally the railway left the roadside here and entered an unfenced right-of-way; the road curved away to the South and wound round to the top of Kenny's Hill and the railway started a 1 in 20 climb to the top of Kenny's Hill. A stop at Rudd's Gate meant a toil to the top of the hill which was crossed in a very steep cutting.

In the early 1920s the road was rebuilt parallel to the railway and also crossed the hill in a deep cutting which now put the roadway several feet below the railway level.

Before the road was rebuilt, the railway again entered the roadside and shared the road right-of-way part way down the West slope of Kenny's Hill, but after the road was re-built, the railway ran parallel to the road but separate from it, without a dividing fence, till almost at the top of Kenny's Hill it again

shared the roadside.

After reaching the crest of Kenny's Hill, the line falls on a 1 in 19 to the foot of the hill; although officially 1 in 19, a small section is 1 in 18 and this is eased to 1 in 20 near the foot of the hill.

On the West slope of Kenny's Hill, we find one of the oddities of this line: situated on a 1 in 20 section was Kenny's Hill Siding, originally put in to serve the Sydney Water Board. The entrance to this siding was by trailing points in the down direction, which meant stopping the train on a 1 in 20 slope, then pegging all the wheels.

The train was then broken and the engine detached with any wagons for the siding; they then proceeded to the foot of the hill to get a section of track level enough to start.

The engine then pushed the vehicles up the hill into the siding where they were left (or collected if they were to be removed). Again the engine would have to proceed to the foot of the hill to start and return up the hill to couple up to the remainder of the train.

This procedure had to be adopted whether leaving or collecting wagons from this siding. Often, after recoupling to the rest of the train, if the pegs could not be removed from the wheels, the train had to be drawn to the foot of the hill with those wheels locked until the whole train reached a piece of track level enough to be able to reverse and ease the



3134 Camden Bridge 11-6-'61.

— Photo by H. P. Holmes



pressure on the pegs.

At the foot of Kenny's Hill, the Sydney water supply canal was crossed and a little further West, on a comparatively level stretch was Kenny's Hill platform, again only a small landing built of sleepers. In the event of a train stalling (which was quite frequent before reaching the top of Kenny's Hill in the up direction), they always proceeded backwards at least as far as Kenny's Hill platform before having another run at the hill.

The railway continued to share the roadside to the foot of Curran's Hill where the road crossed the railway and ran away North-West to the old Cowpastures Road and now the Hume Highway. When Kenny's Hill road deviation was put in, a new road was made on the South side of the railway from the old crossing to Narellan.

Curran's Hill was again a small platform built of sleepers and had a small goods loop. After leaving Curran's Hill, the railway entered its own fenced right-of-way which it retained after the new road was built parallel to it.

Crossing Cowpastures Road on the level, the railway entered Narellan yards. When the line was originally built, Narellan was just South of Graham's Hill but was later shifted to where the town grew. This was its site when the line was closed. Narellan consisted of a passing loop, a goods loop, goods shed, sheep and cattle loading yards, earth and brick platforms and wooden station buildings, and was a staff changing station for the staff and ticket sections to Camden and Campbelltown.

After leaving Narellan, the tramway had its

own right-of-way. Graham's Hill did not come into existence until after the original Narellan was shifted to its present site.

Between Graham's Hill and Kirkham Lane, where the tramway still retained its own right-of-way, there were two short stretches of 1 in 23 and 1 in 24.

From Kirkham Lane to Carpenter's Lane, which was later renamed Elderslie, the tramway still retained its own fenced right-of-way.

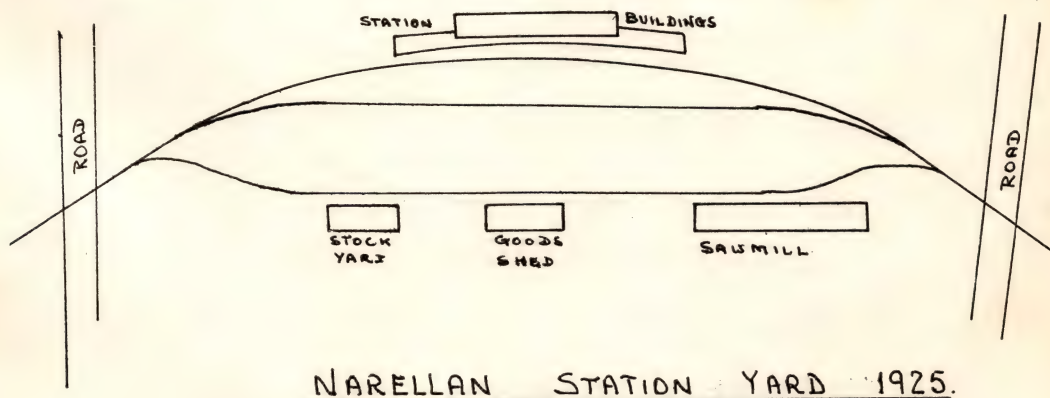
As originally built, it left its own right-of-way at Carpenter's Lane and joined the road to cross the Nepean River on the road bridge. This bridge was built of timber and only 15' wide, yet the tramway was run down the centre of the bridge and then continued on the roadside to its terminus just beyond the bridge.

The line was later continued to its final terminus and the town grew up around it. The original town was on the river bank but because of floods, was gradually shifted to higher ground when the tramway made its terminus at a higher level. The tramway terminating where it did, accelerated the shifting of the town and also tended to encourage the buildings around it.

Camden was a raised earth and brick platform with substantial brick buildings, run-around spur, goods spur and goods sidings, with banks and sheep and cattle yards.

Later, a milk depot was built just outside the station limit and this had its own siding with trailing points in the up direction.

In 1889, it was decided to replace the old wooden bridge across the Nepean River at Camden and the Railways took the chance of building their own bridge. They also brought





the tramway up to railway standards but retained the tramway curves and grades.

With the building of the new bridge, the tramway now had its own right-of-way from Narellan to a little on the Camden side of the new bridge where it joined the old formation and shared the roadside. The up-grading of the line generally included strengthening and re-laying with 60lb rail.

The line, when opened in 1882, was worked by Baldwin 0-4-0 steam tram locos and tramcars, two locos and three tramcars being allotted to the line. Dummy trucks, which are really railway flat four-wheeled trucks fitted with both railway hook and buffer couplings and tramway link and pin couplings were also provided, so that railway goods wagons could also be hauled over the line.

After a racecourse was opened at Narellan, extra locos and cars were worked through from Sydney for the heavy traffic on race days.

The demands proved very heavy on the steam tram locos and Manning Wardle flat top saddle tank engines were acquired. These very diminutive locos which weighed only 18 tons were fitted with railway couplings. Two special KA Class cars were built for them, resembling the suburban cars of Sydney, with a verandah each end but also fitted with a side door and baggage compartment one end. The KA Class cars were only approximately 37 feet overall in length.

The Manning Wardle tank engines arrived in 1884 and started work immediately, but the KA Class cars did not arrive till 1886. With

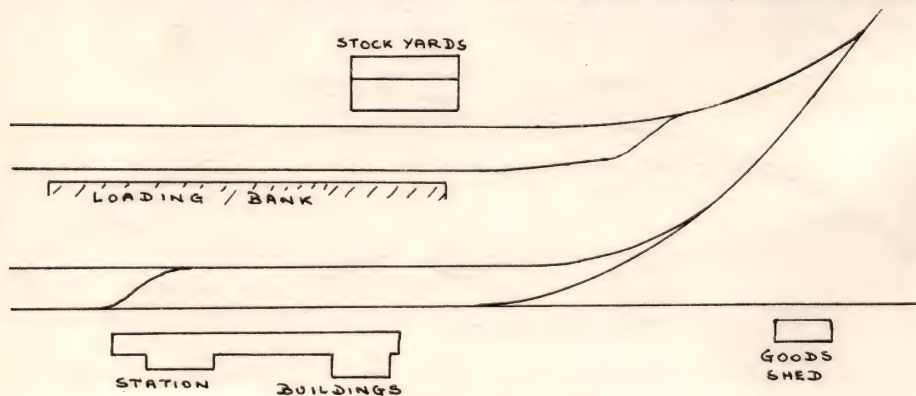
the arrival of the KA Class cars, the Baldwins gave way to the Manning Wardles.

With the strengthening of the line and the new bridge, the line was upgraded from tramway to railway standard in 1901 and E10 Class (later 20 Class) 2-6-4 tanks took over and worked the line almost exclusively to the end, although, towards the end, locos of other classes were occasionally seen on the line.

The KA Class cars continued in service until 1917 when the first of the CCA Class composite cars were built. This was followed by another converted suburban car but with a smaller guard's compartment and larger smokers' compartment. With the arrival of a second car, the KA Class retired. The second car was later replaced by a second CCA Class car and suburban cars were also used occasionally if necessary.

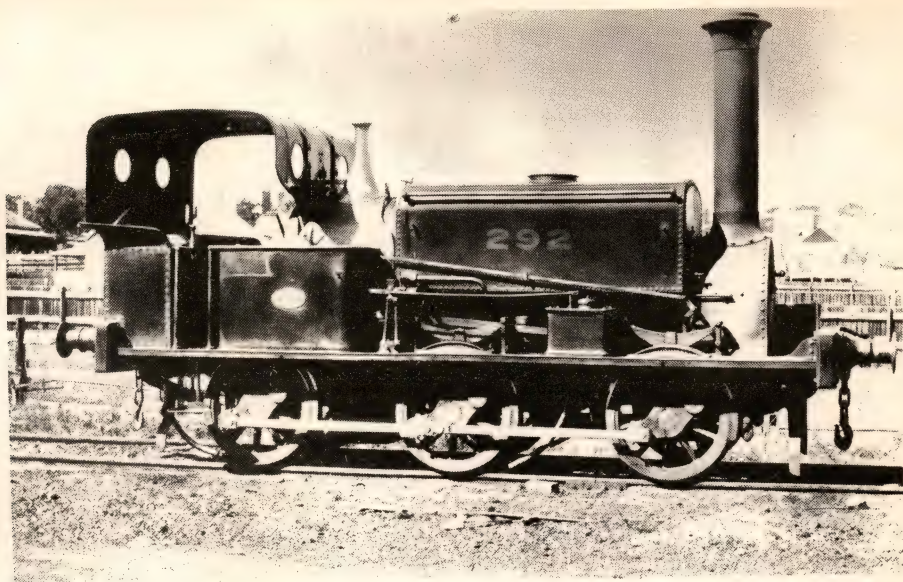
Until the mid-1920s, a converted Redfern car was regularly hauled over the line to carry patients from the Sydney hospitals to Camden for the Carrington Convalescent Hospital.

In the mid-1930s, the Monastery at Rudd's Gate started to hold a religious ceremony each Easter. This necessitated eight and nine car trains between Campbelltown and Maryfields (Rudd's Gate) and as the load of a 20 Class loco was only three cars, this necessitated three locos to a train: two in front and one behind. As there was a five chain curve right at the foot of Kidd's Hill, these engines really thrashed it out up the 1 in 20 with their load and thousands of photos must have been taken, by railways enthusiasts, of the trains on



CAMDEN STATION YARD 1925





One of the two Manning Wardle & Co. saddle tanks which took over from the tramway locos. 292 and 293 worked the tramway until the 20 Class took over. They then passed to the Hoskins Steelworks at Lithgow, N.S.W. Re-assembled as one engine in 1927, transferred to Port Kembla and finally scrapped in 1934.

— Photo from N.S.W.G.R.



A C30 Class 4-6-4 blasts up the 1 in 20 grade out of Campbelltown with the Camden tram. 30 Class were not often seen on this line, this photo being one of the last trips.

— Photo from N.S.W.G.R.



this grade.

The nine car sets and three locos worked a shuttle service from Campbelltown to Maryfields: two locos in front and one behind in the down direction and one in front and two behind in the up direction.

As Campbelltown-Narellan was the staff section, on these days a temporary staff section was set up at Maryfields so the Camden trains could work through.

About 1930 with the development of the Burragorang coal mines, coal was loaded at Camden but later due to the closing of a sawmill at Narellan, the space occupied by the mill was given over to a coal loading ramp. Coal was then hauled from Narellan rather than Camden. As the 20 Class locos were restricted to 80-ton loads on this line, it became a regular sight to see two locos in full eruption thrashing it out on Kenny's Hill with four or five wagons and a passenger car railing.

Before the line was closed, 41 Class and 70 Class diesels also worked over it, being restricted to 196 tons for the 41 Class and 115 tons for the 70 Class.

The coal traffic was later diverted to new sidings built near Glen Lee on the southern line. Thus the Camden line lost all of its goods haulage and this led to its closure.

As I said earlier, all goods vehicles were restricted to four wheels because of the fear of buffer locking with bogie stock, and all passenger wagons (which were bogie vehicles) were fitted with oversize buffer heads.

When the line was first opened, the Baldwin steam trams were allowed 40 minutes each way for the eight miles, which was reduced to 30 minutes when the railway took over, although the run was made in the 1920s from Campbelltown to Camden in 12 minutes with an injured railway porter!

In its early days, the line startled many a horse, but as cars took over, many a driver found a fascination in pacing a train so close he could put his hand out and touch it.

In the very early days of the line, it was the accepted thing for all male passengers to get out and push the train over the 1 in 19 of Kenny's Hill, but in the railway time, it added to the enjoyment of many when the wheels slipped to a stop and all was reversed to the foot of the hill to have another run at it.

The trains have caused consternation to many a motorist travelling on his right side of the road. To see a light bearing down on him apparently driven by someone travelling on his wrong side when, in reality, it was the train travelling towards him alongside the road, was quite unnerving!

Although this line was originally a tramway and carried trains, it retained the name of the Camden Tram until the very end, even though the trams had been replaced by trains for nearly 60 years.

The line was officially closed on December 31, 1962.

I would like to take this opportunity of thanking the Information Office of the N.S.W. Government Railways for help given for this article and others over the years.



5385 and 3510 ascending Ardglen Bank, 23-9-1962.



# Right Of Way

## AN ARTICLE FOR BEGINNERS

by **Maurie McKinnon**

Many of us, having become interested in this wonderful hobby, start off by viewing as many operating layouts as possible. It usually happens that the layouts viewed are large and complicated, the end results of years of modelling.

Rarely do we get to see simple little layouts which are the first flutter of newcomers to the hobby. Although the viewing of large layouts shows just what can be done to reproduce railways in miniature, more than likely it leads the newcomer around in circles until he finishes up — FRUSTRATED. Where to start? What gauge? What type of layout? Where to put it? What materials to use?

Some of these questions can only have personal answers, such as the gauge or scale to adopt, the type of layout to run and the track plan to use. Most of the other seemingly difficult questions have simple answers, providing that one starts at the bottom of the grade, as it were, and climbs up to that beautiful layout which runs itself almost. So — NIL DESPERANDUM — let's attack this grade together.

We will assume that the all-important personal decisions of gauge, track plan, etc., have been made. The next question to be resolved is, usually, where to put the layout. Sometimes one hears of the lucky chap who has a whole room, shed or garage at his disposal in which to build a layout. Unfortunately, these chaps are the exception to the rule; for those who are not so lucky, here are a few possible solutions to this problem of "negative space".

Australia is known as the land of wide open spaces, until one tries to find a suitable space in a modern house for a model railway.

However, even in modern houses, the single "boys" can quite often solve the problem by simply acquiring "right-of-way" in their own bedrooms. The rest of us not only have to find suitable space but are faced with the extra task of acquiring "right-of-way" from the "divisional super". So let's look in our own territory first and see what we can find.

Sheds can often be re-organised to take

some sort of model railway benchwork, especially when we take into account the fact that model railways look better viewed at a height of 3'6" above floor level. This extra height allows work benches, when not in use to be slid on castors underneath the "trains bench" to make double use of the floor space.

Another way to double on floor space is to build storage facilities under the benchwork, such as cupboards, timber racks, etc., even a place for the family motor mower.

Walls at present occupied by shadow boards can be pressed into use to allow around-the-room running. Simply top-hang the shadow board on hinges so that the bottoms of the boards may be lifted away from the wall to provide access to narrow track boards wall-mounted behind.

The garage, even the single-car size, can be most accommodating when it comes to providing operating space. A fixed board of convenient width could be mounted along one wall, while turning loops could be provided, one fixed at the rear of the garage at a convenient height to clear the car bonnet, the other at the front of the garage, mounted on a removable section, to allow room for the car.

For those who prefer the circular type of layout, a baseboard of convenient size could be mounted on folding trestles while in use, and stored flat against a wall. As a variation to this, one edge of a baseboard could be hinged to a wall, the front being supported by folding legs. When not in use, the baseboard could fold flat against the wall. An excellent method of mounting a baseboard, especially where wall space is restricted, is to suspend it from the roof rafters.

I know of two excellent layouts mounted this way. The first, a large one, built almost entirely of  $\frac{1}{4}$ " plywood to accommodate an "S" gauge layout, was raised and lowered by means of an electric winch bought from Disposals. To accommodate a smaller layout in "HO" gauge, the second was raised and lowered by means of a simple winch built from parts taken from a hand lawn mower. The designer, our present "Journal" Editor,



described such a hoist in an article in a previous issue of "Journal", an article which could well be reprinted, I should say.

When in use, both of these layouts were supported on fold-down legs and the suspension wires were hoisted up out of the way to allow free access to the layout.

Sun-rooms and verandahs can be pressed into use by using some of the above schemes to acquire "right-of-way", providing one is prepared to use a little guile in the process.

How about a layout which tolds back against a wall? Won't meet with the approval of "the little woman", you say? Then how about covering the bottom of the framework with a fancy feature board, thus converting a bare wall into a beautiful feature wall? Or, instead of a feature board, use a plain hardboard, fix a decorative bead around the edge and cover the board with artistic travel posters? Even the ceiling hoist trick can be used if the bottom of the layout is covered with hardboard and painted to blend with the ceiling. A fixture of this type could even be welcomed providing, as it would, a "talking-point" for the visitors, especially those visitors who are "a little queer" and don't like trains.

A word of warning here about suitable locations in sunrooms and verandahs: be careful of louvres and sliding windows — they can admit a lot of unwanted dust and moisture, both of which can be most troublesome on layouts.

When it comes to other rooms in the usual home, most "divisional supers" are against encroachment, as they generally consider these as their own territory. On hearsay, I believe that hallways have been made almost impassable with benchwork, holes have been knocked in walls to provide extra trackage, tracks have been laid on shelves at picture rail height, and layouts have been built into glass-topped tables. Then there are the layouts which are designed to fold up or to be dismantled and packed away in cabinets.

This type of layout can involve quite a few technical problems and is really a job for an experienced woodworker, otherwise the end-product is likely to look like a packing case gone wrong — hardly the right kind of conversation piece. All of which goes to show that the "real eager beaver" can usually find

space for a layout somewhere around the house.

Last of all is the territory under and over the house. One of the best layouts that I have seen is one which is still operating . . . under the floor of a brick house.

This "O" gauge layout, a very extensive one, is of such a high standard that it was the subject of a T.V. "fill-in". Its construction entailed a considerable amount of "works and ways" — lots of work, in fact, to provide the "walk-ways" and is an unusual method of providing "right-of-way".

Houses built up off the ground on stilts, of course, are a natural for under-the-house layouts, but such houses are usually built only in the warmer climates. One of our members in Moresby built an extensive layout under his villa, but he was fortunate in that he had the help of native "fettlers" to complete the "earthworks".

There are also several layouts that I know of, operating between roof and ceiling, despite the obstacles which have to be overcome before successful operation can be attained under the tiles. Here again, the obstacles are dust and moisture, plus heat in the summer and, to a lesser degree, cold in winter, but these can be overcome with modern insulation materials.

Without attempting to influence anyone's choice of the type of track plan adopted, here are a few reminders for those who are raring to go, but are still plagued by shortage of space.

A point-to-point layout can be operated on a shelf with a width of a foot or less, placed along one or two sides of a shed or garage. Comprehensive station yards, planned as part of larger layouts to be built when more space is available, can be built on narrow shelves and operated as yards with short leads.

Alternatively, they can be provided with simple, single track, around-the-room loops on narrow track boards, to give some semblance of layout operation, as well as providing continuous running. Another variation would be to provide the yard with narrow-turning loops at each end of the wall; such loops could be installed on a three foot wide shelf, as most locos can negotiate 18" curves. If such narrow curves are likely to offend the purists,



cover them over with decking. Not very elegant, one might say, but at least it would get something running, which is the object of the exercise.

So much for the subject of "right-of-way": in a further article, I shall cover the subjects of materials suitable for, and constructional methods for, such layouts.

It is to be hoped that this article is successful in suggesting a solution to someone's problem of lack of operating space. Meanwhile, should any member have further problems on this subject, just phone, call or write and I will be happy to give your problem my personal attention.



SIGNALMAN'S COMPUTER

Three busy signal boxes on the southern region of B.R. will soon be equipped with computer type memory systems.

These will remember the positions and type of trains and show the signalman the information in four character codes (train head codes) on a cathode ray tube, similar to a T.V. picture tube.

This information will be transferred from one part of the circuit to another as the train moves along the track.

The system will use ferrite core stores and micro-miniature logic elements of the types used in modern computer systems.

THE GOSSIP BRANCH LINE

Hans Wilke (the Marklin Man) started an unofficial guessing game at the December Victorian Branch meeting. He passed around a bogie flat car with a load which intrigued everybody present. It looked like a "thing" from outer space.

One guess was that it was an inflatable tank car being "returned empty" — after all, it was silver colored and very much deflated.

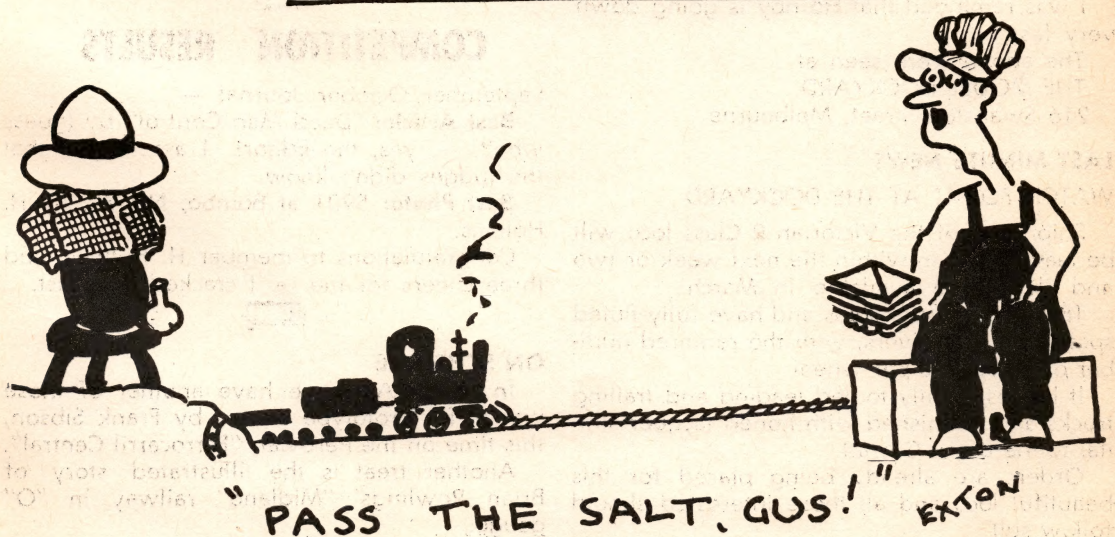
The guess was close to the mark. When time came for "models for display", Hans explained that it was a tank car, which he had bought from Ian Pearson. Hans naturally wanted Marklin couplings, which he proceeded to fit with Araldite, but being in a hurry, placed it in a "just warm" oven to hurry up the Araldite.

He is now wondering whether there is a market for these. After all, we have transporters for giraffes, searchlights, rockets and helicopters. Why not a transporter for "The Thing"?

Ken Elder advises that a few vacancies are still available for late starters to the savings scheme to fly to the 1971 International meeting in England.

The September/October Journal gives details of the terrific savings available to persons taking advantage of the "group travel" scheme.

If you are interested, write to Ken c/- Box 4562, G.P.O. Melbourne.





# Shop Spy

Shop Spy reports are welcomed from any member, but please make sure you get all the facts, and that the items you report will be available when Journal comes out, at least two months after reporting. Post to the Editor.

## MELBOURNE

This issue we have new items ranging from 10 cents to \$285.

New "O" gauge brass locos and rolling stock will be in stock at the Model Dockyard when you read this. The first of these will be

S.P. 4-8-4 "Daylight" loco and tender \$285.

P.R.R. Caboose N.5 (less trucks) \$33

53' "Piggy-back" Flat Car (less trucks) \$19

KTM Bettendorf Spring Trucks (coil

or leaf springs) per pr. \$3.20

I saw the first of a range of high quality brass "O" gauge fittings — brake wheels and hinges — which will sell at about 10 cents each.

They also have the Model Engineering derrick kit at \$2.85.

I saw the huge range of "N.E. scale lumber" in stock (prices were not available). I can see now why the Yanks rave about it. They have I, T and L beams, etc., in amazingly small scale, considering it is timber.

I was reminded that Hornby is going down very fast.

The above were seen at

THE MODEL DOCKYARD,

216 Swanston Street, Melbourne.

## LAST MINUTE NEWS

### WATCH FOR IT AT THE DOCKYARD

Shipments of the Victorian R Class loco will be leaving Japan within the next week or two and should be available in March.

These are superb locos and have fully fluted spokes on the drivers, with the required number of 18 spokes per wheel.

It has especially tooled leading and trailing trucks and is finished with honed lacquer similar to the Beyer-Garratt.

Orders are already being placed for this beautiful loco and all those interested should follow suit.

Probably the best bargain was seen at the M.S.D. They have a large stock of slot car motors of high quality (same as the Mabuchi FT16, for the slot car boys).

These measure less than 1" high by  $\frac{5}{8}$ " wide and body  $1\frac{1}{2}$ " long, with  $\frac{5}{16}$ " of  $\frac{5}{64}$ " shaft protruding at one end. They have sintered bronze bearings, conventional commutator and brushes, and operate on 12v D.C. They may rev. a bit fast, but at 50 cents each, I am sure I will find some applications for them. They will run well on 6 volts, with good power, at about 0.5 amps.

I also saw a new Piko (German) 2-motor Co Co diesel (driving on 4 axles) for \$18.95. Vic Hobbs tells me he has a sample shipment of Piko and Kawai locos. (Remember the Jap firm that made those couplings?). He has a complete range of K's loco kits from \$16.95 for the "Terrier".

I also saw two grades (paper or cloth backed) scenic mats in various shades from snow through greens to browns, from 45 cents up. These would be ideal to cover this big, flat, un-sceniced areas of your layout.

Seen at the MELBOURNE SPORTS DEPOT,  
55 Elizabeth Street, Melbourne.



## COMPETITION RESULTS

September/October Journal —

**Best Article:** "Dead Man Control" by (guess who?) — yes, the Editor! I assure you that the judges didn't know.

**Best Photo:** 5901 at Bombo, N.S.W., by H. Holmes.

Congratulations to member H. Holmes, and three cheers for me — I cracked it at last.



## ON SCHEDULE

In March/April we have another of those wonderful prototype stories by Frank Sibson, this time on the Peruvian "Ferrocarri Central".

Another treat is the illustrated story of Brian Rowlings' "Midland" railway in "O" gauge.